This Page Is Inserted by IFW Operations and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

As rescanning documents will not correct images, please do not report the images to the Image Problem Mailbox.

CLAIMS

We Claim:

1. A headrest for use with an ophthalmic instrument, the headrest comprising:

a distal plate with a central aperture and an attachment slot; one or more arms projecting proximally from the distal plate; one or more face pads coupled to proximal ends of the one or more arms; at least one detection element integrated with the distal plate.

- 2. The headrest of claim 1, wherein the central aperture is substantially circular.
- 3. The headrest of claim 1, wherein the face pads rest at an angle relative to the arms and are substantially parallel relative to the distal plate.
- 4. The headrest of claim 1, wherein the detection element comprises a magnet.
- 5. The headrest of claim 1, wherein the detection element comprises a LED.
- 6. The headrest of claim 1, wherein the detection element comprises an optical filter.

- 7. The headrest of claim 1, wherein the detection element comprises a metal projection.
- 8. The headrest of claim 1, wherein the detection element comprises a radio-frequency transmitter.
- 9. The headrest of claim 1, wherein the detection element comprises a magnetic strip preprogrammed with data relating to an individual that uses the headrest.
- 10. A headrest for use with an ophthalmic instrument, the headrest comprising:

an ophthalmic instrument connector;

a rotation ring connected to the ophthalmic instrument connector, the rotation ring comprising at least one receptacle that receives a detection element; and

an eyecup connected to the rotation ring.

- 11. The headrest of claim 10, wherein the detection element comprises a magnet.
- 12. The headrest of claim 10, wherein the ophthalmic instrument connector comprises a proximal end and a distal end, the proximal end comprising a substantially semicircular lip that is configured to mate with a substantially semicircular slot of an ophthalmic instrument.

- 13. The headrest of claim 12, wherein the proximal end of the ophthalmic instrument connector comprises a mechanical stop that stops the rotation of the rotation ring.
- 14. The headrest of claim 10, wherein the rotation ring comprises an alignment slot that mates with an alignment lip on the eyecup.
- 15. The headrest of claim 10, wherein the eyecup comprises a neck portion and a cup portion distal to the neck portion, the neck portion comprising a ring that connects to the rotation ring, and the cup portion comprising a flexible cup having an apex that aligns with a temporal side of an eye socket.
- 16. The headrest of claim 10, wherein the eyecup is rotationally locked to the rotation ring and the rotation ring is rotatably coupled to the ophthalmic instrument and can be revolved around the ophthalmic instrument connector such that the eyecup rotates with the rotation ring.
- 17. An ophthalmic examination system comprising:

a headrest comprising a detection element; and

an ophthalmic instrument (OI) comprising a microprocessor and a sensor in communication with the microprocessor, said sensor configured to detect the presence of the detection element,

wherein the headrest is configured for coupling to the OI.

- 18. The system of claim 17, wherein the detection element comprises one or more magnets coupled to the headrest.
- 19. The system of claim 18, wherein the sensor comprises a circuit board comprising one or more Hall-effect switches, said circuit board being in communication with the microprocessor.
- 20. The system of claim 19, wherein the one or more magnets line up with the one or more Hall-effect switches when the headrest is coupled to the OI.
- 21. The system of claim 17, wherein the detection element comprises one or more LEDS coupled to the headrest.
- 22. The system of claim 17, wherein the detection element comprises one or more optical filters.
- 23. The system of claims 21 or 22, wherein the sensor comprises one or more photo detectors.
- 24. The system of claim 23, wherein the one or more LEDS or the one or more optical filters line up with the one or more photo detectors when the headrest is coupled to the OI.
- 25. The system of claim 17, wherein the detection element comprises one or more metal projections.

- 26. The system of claim 17, wherein the sensor comprises one or more switches.
- 27. The system of claim 26, wherein the one or more metal projections line up with the one or more switches when the headrest is coupled to the OI.
- 28. The system of claim 17, wherein the detection element comprises a radio-frequency transmitter.
- 29. The system of claim 28, wherein the sensor comprises a radio-frequency receiver.
- 30. The system of claim 17, wherein the detection element comprises a magnetic strip preprogrammed with data relating to an individual that uses the headrest.
- 31. The system of claim 17, wherein the OI comprises a pupilometer.
- 32. The system of claim 17, wherein the OI comprises a glaucometer.
- 33. The system of claim 17, wherein the OI comprises an ophthalmoscope.
- 34. An OI comprising:a detachable headrest comprising a detection element;

a microprocessor; and

a sensor in communication with the microprocessor, said sensor configured to detect the presence of the detection element.

- 35. The OI of claim 34, wherein the detection element comprises one or more magnets coupled to the headrest.
- 36. The OI of claim 35, wherein the sensor comprises a circuit board comprising one or more Hall-effect switches, said circuit board being in communication with the microprocessor.
- 37. The OI of claim 34, wherein the one or more magnets line up with the one or more Hall-effect switches when the headrest is attached to the OI.
- 38. The OI of claim 34, wherein the detection element comprises one or more LEDS coupled to the headrest.
- 39. The OI of claim 34, wherein the detection element comprises one or more optical filters.
- 40. The OI of claims 38 or 39, wherein the sensor comprises one or more photo detectors.

- 41. The OI of claim 40, wherein the one or more LEDS or the one or more optical filters line up with the one or more photo detectors when the headrest is attached to the OI.
- 42. The OI of claim 34, wherein the detection element comprises one or more metal projections.
- 43. The OI of claim 42, wherein the sensor comprises one or more switches.
- 44. The OI of claim 43, wherein the one or more metal projections line up with the one or more switches when the headrest is attached to the OI.
- 45. The OI of claim 34, wherein the detection element comprises a radio frequency transmitter.
- 46. The OI of claim 45, wherein the sensor comprises a radio-frequency receiver.
- 47. The OI of claim 34, wherein the detection element comprises a magnetic strip preprogrammed with data relating to an individual that uses the headrest.
- 48. The OI of claim 34, wherein the OI comprises a pupilomter.
- 49. The OI of claim 34, wherein the OI comprises a glaucometer.

- 50. The OI of claim 34, wherein the OI comprises an ophthalmoscope.
- 51. A headrest comprising a detection element, wherein said headrest is configured for coupling to an ophthalmic instrument.
- 52. The headrest of claim 51, wherein the detection element comprises one or more magnets coupled to the headrest.
- 53. The headrest of claim 52, wherein the one or more magnets are positioned on the headrest to line up with one or more Hal-effect switches located on the ophthalmic instrument when the headrest is coupled to the ophthalmic instrument.
- 54. The headrest of claim 51, wherein the detection element comprises one or more LEDS coupled to the headrest.
- 55. The headrest of claim 51, wherein the detection element comprises one or more optical filters.
- 56. The headrest of claims 54 or 55, wherein the one or more LEDS or the one or more optical filters are positioned on the headrest to line up with one or more photo detectors located on the ophthalmic instrument when the headrest is coupled to the ophthalmic instrument.

- 57. The headrest of claim 51, wherein the detection element comprises one or more metal projections.
- 58. The headrest of claim 57, wherein the one or more metal projections are positioned on the headrest to line up with one or more switches located on the ophthalmic instrument when the headrest is coupled to the ophthalmic instrument.
- 59. The headrest of claim 51, wherein the detection element comprises a radio frequency transmitter.
- 60. The OI of claim 51, wherein the detection element comprises a magnetic strip preprogrammed with data relating to an individual that uses the headrest.
- 61. The headrest of claim 51, wherein the detection element comprises:

 a microprocessor and memory for storing data, the data comprising a unique identifier; and

an interface for electronically communicating with a microprocessor of an ophthalmic instrument.

62. The headrest of claim 61, wherein the interface comprises a serial port, USB port, IrDA port, an optical interface, or an RF interface.

- 63. The headrest of claim 61, wherein the data further comprises information about an individual that uses the headrest.
- 64. The headrest of claim 61, wherein the detection element comprises a bar code.
- 65. The headrest of claim 51, wherein the ophthalmic instrument comprises a pupilometer.
- 66. The headrest of claim 51, wherein the ophthalmic instrument comprises a glaucometer.
- 67. The headrest of claim 51, wherein the ophthalmic instrument comprises an ophthalmoscope.